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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,621	11/18/2003	Woo Sok Kang	SI-0050	3265
34610	7590	08/06/2007		
KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200			EXAMINER PHUONG, DAI	
			ART UNIT	PAPER NUMBER
			2617	
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			08/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/714,621	Applicant(s) KANG ET AL.	
	Examiner Dai A. Phuong	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-16 and 19-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7,8,14-16,19 and 28-30 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,9-13 and 20-27 is/are rejected.
- 7) ☒ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's arguments, filed 07/05/2007, with respect to claims have been considered but are moot in view of the new ground(s) of rejection. Claims 3 and 17-18 have been canceled and claims 20-30 have been added. Claims 1-2, 4-16 and 19-30 are currently pending.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 4-6, 9-13, 20-21, 23-25 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Mangal et al. (Pub. No: 20030148785).

Regarding claim 1, Mangal et al. disclose a method for increasing use time of a battery of a mobile station (MS) of a communication system, comprising:

identifying a use of the MS based on subscriber information stored in a network circuit, said identifying being performed by the network circuit or another network circuit (fig. 1, [0078] and [0114]);

determining a slot cycle index value for the MS based on said use (fig. 1, [0078] and [0114]);

transmitting the slot cycle index value to the MS (fig. 1, [0078] and [0114]);

setting the slot cycle index value in the MS (fig. 1, [00107] and [0117]); and

retrieving slots of a paging channel in the MS according to the slot cycle index value (fig. 1, [00107] and [0117]).

Regarding claim 4, Mangal et al. disclose all the limitations in claim 1. Further, Mangal et al. disclose the method setting the received slot cycle index value when a message input from the user indicates changes of a retrieval period; reporting completion of setting the slot cycle index value to the upper system; and storing the slot cycle index value into a slot cycle index field of a retrieval period information table for the MS in the upper system ([0107] to [0117]).

Regarding claim 5, Mangal et al. disclose all the limitations in claim 1. Further, Mangal et al. disclose the method wherein the slot cycle index value is stored in a certain field of an order message transmitted through a paging channel to the MS ([0107] to [0117]).

Regarding claim 6, Mangal disclose all the limitations in claim 1. Further, Mangal et al. disclose the method wherein said retrieving the slots of the paging channel comprises: comparing the slot cycle index value transmitted based on the identified use with a slot cycle index value and choosing a smaller value; and retrieving the slots of the paging channel as the MS transitions from a sleep state to an active state according to the chosen slot cycle index value ([0107] to [0117]).

Regarding claim 9, this claim is rejected for the same reason as set forth in claim 1.

Regarding claim 10, this claim is rejected for the same reason as set forth in claim 4.

Regarding claim 11, this claim is rejected for the same reason as set forth in claim 5.

Regarding claim 12, this claim is rejected for the same reason as set forth in claim 4.

Regarding claim 13, this claim is rejected for the same reason as set forth in claim 6.

Regarding claim 20, Mangal disclose all the limitations in claim 1. Further, Mangal et al. disclose the method wherein the slot cycle index value is set in the MS based on a message received from a user of the MS, said message authorizing the MS to change a slot cycle index value previously stored in the MS to the transmitted slot cycle index value ([0107] to [0117]).

Regarding claim 21, Mangal disclose all the limitations in claim 1. Further, Mangal et al. disclose the method wherein said use is servicing a call ([0107] to [0117]).

Regarding claim 23, Mangal disclose all the limitations in claim 1. Further, Mangal et al. disclose the method wherein said use is transmitting a character message ([0107] to [0117]).

Regarding claim 24, Mangal disclose all the limitations in claim 1. Further, Mangal et al. disclose the method wherein the stored subscriber information includes billing information stored in a billing center ([0107] to [0117]).

Regarding claim 25, Mangal disclose all the limitations in claim 1. Further, Mangal et al. disclose the method wherein the stored subscriber information includes registration information stored in a home location register ([0107] to [0117]).

Regarding claim 27, Mangal disclose all the limitations in claim 1. Further, Mangal et al. disclose the method wherein the network circuit or said another network circuit is selected from a message switching center, a base station, or a home location register ([0107] to [0117]).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office

Art Unit: 2617

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mangal et al. (Pub. No: 20030148785) in view of Kinnavy (Pub. No: 20030114156).

Regarding claim 2, Mangal et al. disclose all the limitations in claim 1. However, Mangal et al. do not disclose the method wherein the slot cycle index value is a positive number of 0 to 7.

In the same field of endeavor, Kinnavy discloses the method wherein the slot cycle index value is a positive number of 0 to 7 ([0003]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the communication device of Mangal et al. by specifically including disclose the method wherein the slot cycle index value is a positive number of 0 to 7, as taught by Kinnavy, the motivation being in order to conserve power by the mobile station with a higher operating SCI.

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mangal et al. (Pub. No: 20030148785) in view of Henry, Jr. et al. (U.S. 6560453).

Regarding claim 22, Mangal et al. disclose all the limitations in claim 1. However, Mangal et al. do not disclose the method wherein said use is a position-tracing use.

In the same field of endeavor, Henry, Jr. et al. disclose the method wherein said use is a position-tracing use (col. 1, line 60 to col. 2, line 19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the communication device of Mangal et al. by specifically including disclose the method wherein the slot cycle index value is a positive number of 0 to 7, as taught by Henry, Jr. et al., the motivation being in order to decrease power consumption according incoming calls and provide a level of responsiveness to incoming calls that is tailored to their individual preference.

***Reasons for Allowance***

7. The following is an examiner's statement of reasons for allowed:

Claims 7-8, 14-16, 19 and 28-30 are allowed.

Claim 8 is dependent on claim 7.

Claims 15-16, 19 and 28-30 are dependent on claim 14.

Regarding claim 7, the prior art record does not disclose nor fairly suggest a method for increasing use time of a battery of a mobile station (MS) of a communication system, comprising:

***setting a retrieval period of slots of a paging channel according to a use of the MS; wherein said use is one indicated by subscriber information registered in a network circuit and wherein the retrieval period is set based on the following equation:***

$$\text{Retrieval Period} = N * 2^{\text{sci}} * T$$

***where N is a first constant value, SCI corresponds to the set slot cycle index value, and T is a second constant value equal to a predetermined slot period; registering the retrieval period in an upper system; and retrieving the slots of the paging channel as the MS transitions from a sleep state to an active state in the registered retrieval period.***

Regarding claim 14, the prior art record does not disclose nor fairly suggest a method for controlling a mobile station (MS) of a communication system, comprising:

identifying a plurality of mobile stations based on uses thereof by;

(a) *searching subscriber information stored in at least one network circuit, and*

(b) *determining uses of the mobile stations based on the searched subscriber information, the subscriber information indicating a use of a first mobile station different from a use of a second mobile station; and*

*determining a slot cycle index value for the first mobile station based on the use of the first mobile station determined in (b);*

*determining a slot cycle index value for the second mobile station based on the use of the second mobile station determined in (b);*

transmitting the slot cycle index values to the first and second mobile stations; and setting slot cycle index values in the first and second mobile stations according to the uses.

***Allowance Subject Matter***

8. Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 26, the prior art record does not disclose nor fairly suggest the method wherein said retrieving includes: computing a retrieval period for a paging channel as follows:

$$\text{Retrieval Period} = N * 2^{sci} * T$$



where N is a first constant value, SCI corresponds to the set slot cycle index value, and T is a second constant value equal to a predetermined slot period.

### Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

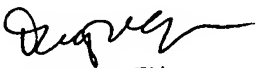
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Duc can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dai Phuong  
AU: 2617  
Date: 08-02-2007

  
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